

Allowed: Pending Claims

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T-125 P 028/037 F-360

Preliminary Amendment

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IN THE CLAIMS

1-29. Canceled.

30. (Currently Amended) ^A a cell component recovering apparatus comprising:

a substrate being disposed in a separation cell, wherein ~~the~~ sample solution containing cells is supplied on a surface of the substrate, ~~and wherein the substrate has a plurality of independent areas are formed on the its surface of the substrate;~~

a first electrode disposed at each of the plurality of independent areas;

a second electrode opposed to the substrate, wherein each of the cells is captured one by one separately on each of the plurality of independent areas, by applying an alternating field between the first electrodes and the second electrode; and

temperature control means for heating the surface of the substrate at one area of the plurality of independent areas to a predetermined temperature to destroy the cell captured at ~~thesaid~~ one area ~~of the areas~~, to liberate cell components from the cell captured at ~~thesaid~~ one area ~~of the areas~~ into the separation cell;

wherein by introducing a washing solution, the apparatus enables liberated cell components from the cell captured in

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said one area to be recovered while cells in areas other than
said one area remain on the substrate, and

wherein said temperature control means individually heats
different areas of said plurality of areas so as to enable
recovery of cell components from said plurality of areas

~~— wherein, by introducing a washing solution into the
separation cell, whereby the cells at the areas, except for
the one area of the areas, remain on the areas, respectively,
the washing solution is recovered to recover the cell
components liberated from the cell, and~~

~~— wherein, by changing a position of the one area of the
areas, the washing solution is recovered to recover the cell
components liberated from the cell for each of the areas.~~

31. (Currently Amended) A cell component recovering
apparatus according to claim 30, wherein the captured cell is
a white blood cell.

32. (Currently Amended) A cell component recovering
apparatus comprising:

a substrate being disposed in a separation cell, wherein
~~the~~ a sample solution containing cells is supplied on a surface
of the substrate, ~~and~~ wherein the substrate has a plurality of
independent areas are formed on the its surface of the
substrate,

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a first electrode disposed at each of the plurality of areas;

a second electrode opposed to the substrate, wherein each of the cells is captured one by one separately on each of the plurality areas, by applying an alternating field between the first electrodes and the second electrode;

means for identifying the positions of ~~the one~~ areas where ~~the~~ cells each labeled with a fluorescence-labeled substance ~~are~~ is present, wherein the fluorescence-labeled substance binds to ~~the~~ cells to selectively label cells by a binding reaction, the fluorescence-labeled substance emits fluorescence upon irradiation with an excitation light, and the positions of ~~the said one areas are~~ is identified by detecting the fluorescence; and

temperature control means for heating the surface of the substrate at said one area ~~of the identified positions~~ to a predetermined temperature to destroy the cell captured at ~~the said one area of the one of the identified positions~~, to liberate cell components from the cell captured at ~~the said one area of the one of the identified positions~~ into the separation cell;

wherein by introducing a washing solution, the apparatus enables liberated cell components from the cell captured in said one area to be recovered while cells in areas other than said one area remain on the substrate, and

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wherein said temperature control means individually heats different areas of said plurality of areas so as to enable recovery of cell components from all of said plurality of areas

~~wherein, by introducing a washing solution into the separation cell, whereby the cells at the areas, except for the area at the one of the identified positions, remain on the areas, respectively, the washing solution is recovered to recover the cell components liberated from the cell, and~~

~~wherein, by changing a position of the identified positions, the washing solution is recovered to recover the cell components liberated from the cell for each of the identified positions.~~

33. (Currently Amended) A cell component recovering apparatus according to claim 32, wherein the captured cell is a white blood cell.

34. (Currently Amended) A cell component recovering apparatus comprising:

a substrate being disposed in a separation cell, wherein thea sample solution containing cells is supplied on a surface of the substrate, and wherein the substrate has a plurality of independent areas are formed on theits surface ~~of the substrate;~~

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a first electrode disposed at each of the plurality of areas;

a second electrode opposed to the substrate, wherein each of the cells is captured one by one separately on each of the plurality of areas, by applying an alternating field between the first electrodes and the second electrode;

means for identifying ~~the positions of the one~~ areas where ~~the~~ cells labeled with the fluorescence-labeled antigen substance ~~are~~ is present, wherein the fluorescence-labeled antigen substance is introduced into the separation cell to label ~~the cells~~ which make an antibody response to the antigen substance, the fluorescence-labeled antigen substance emit fluorescence upon irradiation with an excitation light, and the positions of ~~the said one areas are~~ is identified by detecting the fluorescence; and

temperature control means for heating the surface of the substrate at said one area ~~of the identified positions~~ to a predetermined temperature to destroy the cell captured at ~~the said one area of the one of the identified positions~~, to liberate cell components from the cell captured at ~~the said one area of the one of the identified positions~~ into the separation cell;

wherein by introducing a washing solution, the apparatus enables liberated cell components from the cell captured in

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said one area to be recovered while cells in areas other than
said one area remain on the substrate, and

wherein said temperature control means individually heats
different areas of said plurality of areas so as to enable
recovery of cell components from all of said plurality of
areas

~~wherein, by introducing a washing solution into the
separation cell, whereby the cells at the areas, except for
the area at the one of the identified positions, remain on the
areas, respectively, the washing solution is recovered to
recover the cell components liberated from the cell, and
wherein, by changing a position of the identified
positions, the washing solution is recovered to recover the
cell components liberated from the cell for each of the
identified positions.~~

35. (Currently Amended) A cell component recovering
apparatus according to claim 34, wherein the captured cell is
a white blood cell.